



TWINNING PROJECT FICHE

Supporting the Egyptian Ministry of
Transport in the Implementation of the
Railway Safety Management System

Under the

**Support to the Implementation of the Action Plan
and Association Agreement Programme (SAAP III)**

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ANNEXES TO THE FICHE

ANNEX 1. LOGICAL FRAMEWORK MATRIX

GLOSSARY OF TERMS

AA	Association Agreement
AIB	Accident Investigation Body
BAH	Booz Allen Hamilton Company
BC	Beneficiary Country
CAMO	Central Administration for Management and Organization (Egyptian national organization that authorize changes at administrative / managerial level for all public entities)
COTIF	Convention concerning International Carriage by Rail (<i>Convention relative aux Transports Internationaux Ferroviaires</i>)
EC	European Commission
EN	European Norm
ENP	Egyptian National Plan
ENPI	European Neighbourhood and Partnership Instrument
ENR	Egyptian National Railways
ETCS	European Train Control System
EU	European Union
HR	Human Resources
HRM	Human Resources Management
KE	Key Expert
MEDA Programme	Financial and Technical measures to accompany the reform of economic and social structures in the framework of the Euro-Mediterranean partnership.
MoT	Ministry of Transport
MS	Member State
NSR	National Safety Regulations
OTIF	Intergovernmental Organisation for International Carriage by Rail (<i>L'Organisation Intergouvernementale pour les Transports Internationaux Ferroviaires</i>)
PAO	Programme Administrative Office
PL	Project Leader
PLD	Passenger Long Distance
PSC	Project Steering Committee
PSD	Passenger Short Distance
RETB	Radio Electronic Token Block
RSRU	Railways Safety Regulatory Unit
RTA	Resident Twinning Advisor
RTAA	Resident Twinning Advisor Assistant
SAAP	Support to the Association Agreement Programme
SBU	ENR Safety Business Units
SRM	ENR Safety and Risk Management Department
SMS	Safety Management System
STE	Short-Term Expert
UfM	Union for the Mediterranean
UIC	International Union of Railways (<i>Union Internationale de Chemins de Fer</i>)

1. BASIC INFORMATION

1.1. Programme

Support to the Implementation of the Action Plan and Association Agreement Programme (SAAP-III)

1.2. Twinning Number

EG/13/ENP/TP/20

1.3. Title

Supporting the Egyptian Ministry of Transport in the Implementation of the Railway Safety Management System

1.4. Sector

Transport

1.5. Beneficiary country

Egypt

2. OBJECTIVES

2.1. Overall Objective(s)

To contribute to strengthening the overall capacity of the Egyptian administration in the Railway Safety field in line with the EU Acquis and best practices.

2.2. Project Purpose

To assist the Ministry of Transport (MoT) and the Egyptian National Railways (ENR) in enhancing their capacities related to the implementation of the regulatory framework, and upgrading the safety management system in line with the EU Acquis and best practices.

2.3. Contribution to the National Development Plan / Association Agreement / Action Plan

EU-Egypt bilateral relations takes place within the scope of the European Neighbourhood Policy (ENP) and is funded through the European Neighbourhood Policy Instrument (ENPI), devoted to supporting the EU Southern partner countries and their Association Agreements (AA). Egypt is one of the major beneficiaries under the ENPI to support its reform process reflected in the priorities jointly agreed in the EU-Egypt ENP Action Plan. Within the framework of and relevant to the ENPI strategic objectives this project will focus its contribution on one of the four principle axes, institutional support.

With the entry into force of the AA on the 1st of June 2004, relations entered into a new and more intense phase, through which the Barcelona process, the multilateral forum of dialogue between the EU and its Mediterranean partners, whose work programme includes a wide range of action lines including the Transport Sector Policy Support Programme.

Based on respect for democratic principles and fundamental human rights, the AA aims at furthering regional integration with a view towards the creation of an area of shared prosperity as well as providing a framework for political dialogue and closer economic, social and cultural relations between the two parties. Economic cooperation includes the liberalisation of trade in goods and services, as well as capital movement. It also proposes the completion of a Free Trade Area by 2015 (2018 for a very limited number of industrial goods). In addition, the AA aims at supporting Egypt's economic and political reform efforts through the approximation of laws, regulations and standards applied in Egypt to those of the EU.

It also aims to establish the appropriate framework for co-operation and partnership, within the larger regional context and building on the significant development assistance co-operation between Egypt and the European Union. It also has a role in supporting and encouraging domestic reform.

Furthermore, a set of shared priorities has been defined within the EU-Egypt ENP Action Plan of March 2007.

To support the Egyptian Administration in implementing the AA and the ENP, the European Union launched the “Support to the EU-Egyptian AA Program (SAAP)” with the aim of contributing to Egypt’s efforts for upgrading the overall capacity of public administrations. The Program focuses on three core areas: (i) trade and economic liberalization; (ii) improvement of the legislative and regulatory framework; and (iii) institutional strengthening and reform.

The SAAP makes available to the Egyptian Government institutions the expertise of the European Member States so as to harmonize their institutional and administrative framework and to create a competitive climate for economic growth, with the help of the EU Acquis. The institutional twinning instrument is given particular importance as it is perceived to be an efficient and appropriate vehicle for technical expertise and knowledge transfer for the achievement of institutional strengthening and legislative harmonization.

The Union for the Mediterranean (UfM), created at the Paris Summit of EU-Mediterranean Heads of State and Government on 13th July 2008, is the framework of multi-lateral relations between the EU and the Mediterranean non-EU countries which includes Egypt. The EU fully supports the UfM which complements bilateral relations, which will continue to develop under the ENP/ENPI. The UfM builds on the acquis and reinforces the achievements of the Barcelona Process, launched in 2005. While the Barcelona Declaration, its goals and its cooperation areas remaining valid, the UfM gives a new impulse to the Barcelona Process by making the above relations more concrete and visible through additional regional and sub-regional projects, relevant to the citizens of the whole region. These projects are in the core of the UfM and should have visible impact on the life of the citizens of the whole region by promoting growth, employment, regional cohesion and socio-economic integration, by supporting the creation of infrastructure for interconnections and supporting businesses.

Within EuroMed transport cooperation, Egypt is beneficiary of a regional land transport programme (road/rail/urban transport). The present twinning is encouraged to create synergies between these two complementary (bilateral and regional) ENP tools which technically support the urban transport reform based on the relevant EU directives and best practices.

The present Twinning is fully in line with current overall Egyptian policy, as it is defined in the Egyptian Strategic Plan to support the implementation of the Action Plan and the Association Agreement Programme – SAAP covering the period 2010 to 2016.

Regarding the Transport Sector, the EU Egypt joint action plan stressed on the importance of cooperation in the transport field especially with regard to developing transport infrastructure applying air, maritime, and road safety measures.

Referring particularly to the Railway Sector, the Plan establishes the objective of improving the railways safety, through the development of a Safety Monitoring system, and the development of the Training and Human Resources management. The Human Resources component shall have the heavier weight in the project, through the development and implementation of a new HR policy and the introduction of an efficient selection process especially for safety critical jobs.

In the field of Railways, the relevant EU directives and best practices essential to “*acquis communautaire*” which are also relevant to the project are the following:

Rail sector adaptation to the market

- Directive 91/440: it requires that railways be managed along the same commercial lines as private companies, driven by market demands.
- Regulation 1893/91: concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway.
- Directive 95/18: on the licensing of railways
- Directive 95/19: on the infrastructure capacity allocation and charging

Technical Harmonisation

- White Paper 1996: on a Strategy for Revitalising the Community’s Railways
- Directive 2008/57: on the interoperability of the rail system within the Community (both high-speed and conventional rail systems)

The following are the Conventional Rail Technical Specifications for interoperability:

- Operation and traffic management - (2011/314/EU)
- Locomotives and passenger rolling stock subsystem – (2011/291/EU)
- Infrastructure Subsystem – (2011/275/EU)
- Energy Subsystem – (2011/274/EU)
- Noise – (2011/229/EU)
- Telematic applications for freight service – (62/2006/EC)
- Rolling stock - freight wagons – (2006/861/EC)
- The following are the Transversal Technical Specifications for interoperability:
- Control command and signalling subsystems – (2012/88/EU)
- Telematic applications for passenger service – (454/2011)
- Persons with reduced mobility – (2008/164/EC)
- Safety in railway tunnels – (2008/163/EC)

Improvement in Safety and Accident Investigation

- Directive 2004/49: (main Directive on Railway Safety). It provides a mechanism for harmonising safety standards and requirements (Common Safety Indicators, Common Safety Targets, and Common Safety Methods). Safety Bodies are introduced by this Directive, as well as Accident Investigation recommendations.
- Directive 2004/51, further revision of Directive 91/440. It introduces important developments in freight market liberalisation.
- Regulation 2004/881, on the establishment of the European Railway Agency.

Others

- Commission recommendation for access to the Convention concerning International Carriage by Rail (COTIF). The principal aim of COTIF is to establish a uniform system of law, which applies to the carriage of passengers, luggage and goods in international through-traffic by railway between the OTIF states.
- Directive 2007/59, on certification of train drivers operating locomotives and trains on the railway system in the Community.
- Commission Regulation 445/2011 on a system of certification of entities in charge of maintenance for freight wagons
- Commission Regulation 352/2009 on the adoption of a common safety method on risk evaluation and assessment

The aim of this twinning project is fully aligned with the common European normative related to Railways.

Particularly, it will fully contribute to the implementation of the Safety Directive (2004/49), pursuing the implementation of the Safety Management System already drafted within the Egyptian National Railways, but not approved. Train driver certification is also to be achieved through this twinning project, as well as the certification of entities in charge of the maintenance of freight wagons.

3. DESCRIPTION

3.1. Background and justification

3.1.1. Background specific to the Railways Sector

The Egyptian Railway is one of the largest railway markets in the Middle East and Africa, with a railway network that is almost as old as that of Great Britain. Due to lack of investment and appropriate maintenance, the Railway finds itself in a difficult situation lately. A number of serious challenges have already started to be tackled in order for this strategic sector to reach its full potential, and the network already started a Transformation Program.

ENR General Data

The following information summarizes the main network data:

- The Railways Network has a length of approximately 5,000km, a third of the lines are double track, while the majority of the network is being operated through single track.
- ENR infrastructure management is organized into six different Regions (Central Region, Middle Region, West Delta Region, Middle Delta Region, East Delta Region, and Southern Region)
- ENR is organized by Business Units (Passengers Long Distance, Passengers Short Distance, and Freight) that at the moment also include the rolling stock maintenance; a proposal to unify rolling stock maintenance activities is awaiting a decision by CAMO
- ENR has a total staff of approximately 60,000 people. Out of the total staff, there are 9 top managers (Chairman and Vice Chairmen), 218 managers (Directors and General Managers), 1,494 middle managers (Managers and Head of Sections), and 1,681 graduates.
- The line is not electrified. The Signalling System comprises different standards and technologies (on most lines, old and unreliable mechanical equipment is installed; electromechanical and electrical systems are installed in some sections, such as Cairo-Alexandria and Giza –Beni Suef, being possible to remotely control the electrical facilities in very short sections; a radio system –RETB (radio electronic token block- is installed on the single track line to Baharia Mine, being operated by central site in Cairo; finally, three new electronic interlockings have recently been installed between Qaliob and Shbien el Qanater stations)
- The fleet is composed of 597 passenger locomotives, 224 freight locomotives, 3,738 coaches and 11,613 wagons. Rolling Stock reliability has increased during the last years, but is still under benchmark ratios.
- Distributed along the Network, there are 18 workshops placed on 10 different main areas dedicated to Rolling Stock Maintenance. Besides the corresponding 18 General Managers, 52 Managers, 109 Head of Sections and around 14,000 technicians work in the workshops.

Legal Framework

The Legal Framework for the Railway Sector is included in the following legislation:

- **Law 152/1980**, establishing the Egyptian National Railways Authority. It is complemented / modified by Law 149/2006, which allows the private sector to access railway operation (still no company has entered this market)
- **Decree 17/1982**, establishing ENR employees regulation (including ENR punishment system)
- **Decree 176/2007**, establishing RSRU
- **Decree 585/2008**, including Metro System within the Scope of the RSRU activities.
- **Decree 311/2011**, issuing National Safety Regulations

Railways Policy Framework

The Railways Policy framework regarding Safety, which has started being developed during the first twinning project, may be defined as follows:

- Full implementation and development of the Railways Safety Regulatory Unit (RSRU), responsible for the following tasks:
 - Setting the overall railways policy and strategy
 - Formulating and enforcing the regulatory framework
 - Undertaking auditing
 - Undertaking Certification, Accreditation and Licensing activities
- Full implementation and development of the Railways Inspectorate within ENR, responsible for the following tasks:
 - Risk assessment and hazard identification
 - Technical Inspection of Infrastructure and Rolling Stock.
 - Safety auditing
- Updating Safety Regulations,
- Developing a new Signalling System (improving operational efficiency and enhancing safety)
- Carrying out the Modernization of Infrastructure and Rolling Stock
- Establishing Safety database
- Restructuring the Organizational structure (ENR) and reforming HR policies and regulations
- Compliance of the Railways System with the National Safety Regulations
- Implementation of the Safety Management System within ENR

First Twinning Project

A first Twinning Project granted by the EU *for Assistance to the Egyptian Ministry of Transport for reforming Railway Safety Regulation Procedures and Practices*, which was awarded to France and was carried out from 2008 to 2010.

RSRU and ENR were systematically involved in the process of the Twinning Project and work was mostly done and validated through several specialised working groups.

Fifty Benchmark reports (including several Manuals), covering all subjects related to the Twinning Project, were elaborated.

Study tours (to France, to Lithuania, to Finland and Estonia), and numerous seminars and workshops contributed to train the Egyptian counterparts.

A lot of meetings were held during the course of the Twinning Project, including contacts with experts from other studies or projects performed in parallel, as well as with officials from other institutions.

Both the twinning team and the beneficiary team were satisfied that the achievement of the objectives of Project was rated as Highly Satisfactory for Performance and Very Satisfactory for Implementation.

The Project's impact has been mostly a sensitive increase in Safety Awareness in MoT, RSRU and ENR as well as mastering of new procedures and organisations inspired by EU Directives on railway's sector.

The main achievements of the first twinning project may be summarized as follows:

- Implementation of the Railway Safety Regulatory Unit (RSRU) within the MoT
 - Preparation and publication of National Safety Regulations (NSR)
 - Developing work methodologies (regulation development, inspection, accident investigation, reporting, etc.)

- The authorization of new Rolling Stock already started
- Implementation of the Safety & Risk Management Department within ENR
 - Preparation of Safety Management System (not completed)
 - Developing work methodologies (procedures development, inspection, accident investigation, risk assessment, developing action plan, etc.)

Whereas the implementation of the following major safety aspects is still remaining:

- SMS implementation
- Certification of critical safety staff and of maintenance centres
- Full implementation of Risk Assessment cycle
- Documentation Management implementation / Safety Procedures evaluation and upgrading
- Full Safety Database implementation
- Critical safety staff training enhancement and Human factor
- Safety staff training enhancement in accordance to European Standards

3.1.2. Justification

This project will contribute to all three of the SAAP core areas mentioned above; in particular the following:

- Improvement of the legislative and regulatory framework ;
- Institutional strengthening and reform.

Specifically, **this project aims to fully implement the regulatory framework which was developed during the first Twinning Project granted by the EU** for *Assistance to the Egyptian Ministry of Transport for reforming Railway Safety Regulation Procedures and Practices.*

The project will focus on the implementation of the following:

- Safety Management System
- Certification of critical safety staff and of maintenance centres
- Documentation Management implementation / Safety Procedures evaluation and upgrading
- Critical safety staff training
- Drafting of new legislation on Level Crossings
- Implementing the Accreditation process of Rolling Stock Maintenance Centres
- Implementing the Accreditation process of the Operation Control Centres

Also, the objectives of the project are fully in compliance with the European Railways Policy. Specifically, the following:

- **Directive 2004/49:** (main Directive on Railway Safety) - Safety Management Systems
- **Commission Regulation 445/2011** on a system of certification of entities in charge of maintenance for freight wagons
- **Commission Regulation 352/2009** on the adoption of a common safety method on risk evaluation and assessment

The above aspects in which the new twinning will be focused constitute the continuity of the already achieved objectives of the previous twinning project (Ref. section 3.3.1 “*First Twinning Project*”).

The MoT and ENR are looking for partners who have already implemented the European Safety Railways Directives, and who already know how to deal with the problems arising from the implementation. The twinning

project is considered to be a ‘corner stone’ for the implementation of the Safety Management System specially supporting ENR in strengthening its capacities in operational and effective management, in improvements to training quality and be able to be better responsiveness to railways’ needs in terms of skills and competencies. Based on the needs of the Railways Safety and in view of EU “best practices” the twinning project is expected to initiate and consolidate reforms which will involve strong governmental commitment and organizational and structural changes.

3.2. Linked Activities

- Starting in 2008 and foreseen to be concluded by 2014: **International assessment to actually perform the previously defined Transformation Program** (the agreement was made with Italy, and currently a team of 10 Railways Experts is performing the Program within the ENR Organization). The Transformation Program was defined by the MoT from 2006 up to 2008; it established five top priorities:
 - Sector Framework (technology / processes)
 - ENR structure / new operating model
 - Asset & Infrastructure investment
 - Revenue optimization
 - Safety capabilities upgrade
- Starting 2008 and foreseen to be concluded by the beginning of 2014: the **Transport Sector Policy Support Programme** including the Technical Assistance granted by the EU to support the Reform of the Egyptian Transport Sector.
- **Permanent Way future investment plans:** there is a plan to renovate the track over the coming years (a total of 1,115 km up to the year 2017). There is an on-going plan to upgrade some track machines and acquire some new track diagnostic machines.
- **Signalling future investment plans:** there is a plan to renovate the signaling system along the network. It will consist of signaling modernization on all main corridors according to international standards (ETCS lev.1 standard approved by ENR). The modernization of the telecommunications system will be included within the modernization of the signaling system.
 - Corridor 1: Cairo-Alexandria (208 km, new 20 electrical towers) in operation 05/2016
 - Corridor 2: BeniSuef-Asyut (250 km, new 15 electrical towers) in operation 05/2017
 - Corridor 3: Tanta-Mansoura-Damietta (118 km,) in operation 12/2018
 - Corridor 4: Benha-Ismailia-PortSaid (191 km, new 21 electrical towers) in operation 06/2017
- **Operation and Traffic Management future modernization plan consisting on the following:**
 - Completion of Train Delay Analysis System to cover all ENR trains (PLD, PSD and Freight)
 - Launching the Operation Management System to support railway operation (timetable, simulator, update management)
- **Plans for Rolling Stock Purchasing (up to 2022)**
 - Regarding Passenger Long Distance: there are plans to buy 20 power coaches, 212 air conditioned coaches, 20 complete high capacity trainsets and 50 sleeping coaches for passenger long distance. Additional 390 new coaches are planned to increase the offer per train (composition from 11 to 13 coaches)
 - Regarding Passenger Short Distance: 336 new coaches for regional services, 20 high capacity trainsets for urban and suburban services, and 700 new coaches to complete the fleet renewal.
 - Regarding Freight: investment is planned to acquire 250 wagons for clay, 150 open high side wagons, 50 tankers wagons, and 250 flat wagons. In a second phase, the plan is to acquire other 752 wagons.
 - Regarding locomotives, it is planned to start the fleet renovation in 2020.

3.3. Results

3.3.1. Component 1: Regulatory framework

The following are the mandatory results related to component 1:

- Methodologies for certifying safety critical staff are developed, and ENR drivers are certified.
- Criteria for Workshops and Control Centres accreditation are defined, and the strategic plan for all workshops and control centres obtaining accreditation is developed.
- New regulation for level crossings is drafted.
- The list of technical standards for ENR systems is made available to all stakeholders

3.3.2. Component 2: Safety Management System

The following are the mandatory results related to component 2:

- The procedure for documentation management is completely developed and implemented.
- The safety procedures for Operation and Rolling Stock Maintenance which need upgrading are upgraded and those which need to be developed are developed.
- A pilot project related to the specific methodology for following up the implementation of some selected procedures is developed and implemented.

3.3.3. Component 3: Capacity Building

The following are the mandatory results related to component 3:

- The Training Programme is upgraded and implemented.
- An action plan for drivers' capacity (*Human Factor*) enhancement is developed.

3.4. Activities

The main principle governing the twinning is the approximation to the relevant EU directives and best practices including the most appropriate framework for the Railways Safety in the assimilation of best European management and operational practice in the field.

The sections below describe the activities for each of the project components.

All components will include knowhow transfer and training of relevant staff to ensure the effectiveness of the twinning partnership and to reinforce the capacity building and sustainability.

In addition, the project would include study tours to EU MSs to give MoT and ENR officials and staff first-hand experience, broaden understanding and the opportunity for exchange of know-how through international co-operation. Beneficiary staff will be able to assess best practices and practical solutions for the achieving the objectives and results of this twinning project.

Kick off -and final meetings

The following general activities are envisaged to be implemented, in addition to project components:

- a kick-off meeting at the beginning of the project inviting all stakeholders to provide them with background information on the project components; this activity takes place with the aim of increasing project visibility.

- a final meeting to ensure that the results achieved by the end of the project are made available to all stakeholders; this activity will be held to ensure awareness and visibility in addition to wrapping-up of project activities.

3.4.1. Component 1: Regulatory framework

The activities in this component focus on the following priority areas for improving the institutional and legal efficiency to build on strengths and address weaknesses in the legal and regulatory framework:

- **Methodologies for certifying safety critical staff are developed, and ENR drivers are certified.**
 1. Defining skill requirements (psychological, physical and technical)
 2. Defining detailed training program and examination process.
 3. Assessing the decision on whether training/examination shall be carried out within ENR or outsourced.
 4. Defining certification process – first certification and renewals - including the development of the register where all certifications can be tracked.
 5. Issuing the Procedure for each safety critical staff position certification
 6. Following up driver's certification.
- **Criteria for Workshops and Control Centres accreditation are defined, and the strategic plan for all workshops and control centres obtaining accreditation is defined.**
 1. Assessing of current situation of Workshops and Control Centres
 2. Assessing of type of works which are subcontracted, conditions of the subcontracting activities and testing performance on the delivery of repaired subsystems.
 3. Defining criteria for Workshops and Control Centres accreditation
 4. Defining strategic plan for Workshops and Control Centres
- **New regulation for level crossings is drafted.**
 1. Assessing the Risk on level crossings current situation
 2. Defining action Plan following the risk assessment is defined
 3. Drafting new regulation
- **The list of technical standards for ENR systems is made available to all.**
 1. Supporting ENR to get connected to the technical standards providers (UIC, EN)
 2. Providing a course on main technical standards contents for each railway subsystem (track, signalling, rolling stock, etc.)
 3. Supporting ENR on the evaluation of which technical standards to adopt

3.4.2. Component 2: Safety Management System

The activities of this component focus on the following priority areas for actually implementing an efficient Safety Documentation Management System, which will make procedures available and their implementation traceable.

- **The procedure for documentation management is completely developed and implemented.**
 1. Assessing current documentation management
 2. Developing procedures for documentation management
 3. Implementing the system
- **The safety procedures for Operation and Rolling Stock Maintenance which need upgrading are upgraded and those which need to be developed are developed.**
 1. Assessing existing safety procedures, identifying those which need upgrading.
 2. Determining conclusions of the risk assessment that the ENR-SRM carries out each year, and developing the list of new procedures.
 3. Upgrading those procedures which need upgrading
 4. Developing those procedures identified in action 2.
- **As a pilot, the specific methodology for following up the implementation of some selected procedures is developed and implemented.**

1. Determining, based on conclusions of the risk assessment that the ENR-SRM carries out each year, the list of procedures whose implementation requires specific follow-up.
2. Developing the specific methodology for following-up the implementation of those procedures identified in action 1.
3. Implementing the defined following-up methodology.

3.4.3. Component 3: Capacity Building

The activities in this component focus on the enhancement of the capacity of all safety critical and safety related staff to effectively carry out their daily activities. Specific courses need to be included in the training programme to make each person aware of the consequences that their behaviour may have on others' lives. Moreover, specific courses on the importance of knowing the rules and complying with all of them shall particularly be developed to be included in the training programme.

- **The Training Programme is upgraded and implemented**
 1. Revising and upgrading the Job Description for all positions, based on skills requirements
 2. Revising and upgrading training schedules and training contents for operation and rolling stock maintenance related positions
 3. Revising and upgrading training documentation for operation and rolling stock maintenance related positions
 4. Developing specific courses to increase safety culture
 5. Developing specific courses for preparing Head of Sections/Engineers to perform on-job training to the team.
 6. Developing specific methodology for traceability of on-job training.
- **The action plan for drivers (Human Factor) enhancement is developed.**
 1. Assessing current situation of Human Factor Management
 2. Developing Action Plan

3.5. Means / Input from the MS Partner Administration

3.5.1. Profile and tasks of the Project leader (PL)

The Project Leader will be responsible for the overall conception and implementation of the MS inputs in the twinning project and will ensure the achievement of the mandatory results. He/she should have a sound knowledge of the Railway Sector and EU safety directives as well as possess leadership skills. These types of qualifications can only have been gained through management experience at a high level post in the MS Railway Transport Sector.

The project leader will be expected to spend a minimum of 3 days per month in his home base, providing project direction, as well as undertake at least one mission to the beneficiary organization every three months for attending Steering Committee meetings. In coordination with the BC Project Leader, she/he will be responsible for the organization of the project's Steering Committee which includes the RTA and representatives of the PAO, and EU Delegation.

Profile: the PL should have a university degree or higher in one of the fields of management or engineering, and should have proven experience in coordinating MS public administration structures in the field of railway transport.

Qualifications and Skills

- Thorough knowledge of EU directives particularly those related to safety.
- Good command of the English language both written and oral.
- Inter-personal and leadership skills;

Management Capacity

- Hold a senior position at a Railway Operator;

Professional Experience

- A high ranking official within the MS public administration, having long-term experience as civil servant from a MS in the field of Railway transport
- knowledge of EU Safety Railways regulation and operational activities related to the various components of the project;
- Work experience in Egypt or other countries in the region will be advantageous

Tasks:

- Managing and coordinating the overall direction of the project in cooperation with the PL counterpart
- Ensuring the achievement of the project results
- Overseeing project implementation and progress
- Liaising with the PL of the beneficiary institution
- Mediating in the event of conflicts
- Overseeing financial management of the project
- Managing and supervising the RTA
- Preparing, with the assistance of the RTA, interim quarterly and final reports
- Attending and moderating the PSC meetings.

3.5.2. Profile and tasks of the RTA

The duration of the RTA assignment is 24 months. He/she will lead all aspects of the work of the MS team and will work directly with the BC project leader and RTA counterpart on a daily basis to support and coordinate the activities being implemented in the BC.

The RTA is expected to provide high level advice and direction on all project activities. He/she will ensure that best European know-how will be fed into the day to day activities and the decision making process at the Beneficiary organization.

Profile: the RTA should have a university degree or higher in management, engineering, HRM or a related discipline and will work directly with the BC project leader and RTA counterpart on a daily basis to support and coordinate the activities being implemented in the BC.

Qualifications and Skills

- High inter-personal and communication skills
- Good command of the English language, Arabic also is an asset
- Extensive knowledge of European Safety Directives
- Extensive knowledge as well as personal experience of the best EU practices

Management Capacity

- Familiar with programme management.

Professional Experience

- Previous experience of managing multi-disciplinary and multinational teams
- At least 5 years of relevant experience in the Railways field
- Experience in implementing Safety Management Systems
- Experience in Safety Certification (safety critical positions) implementation.
- Experience in twinning or international cooperation projects would be an asset
- Several years of sound experience at senior management level in developing action plans, implementing policies and managing work plans

Tasks:

- Directing and supervising overall project implementation according to the agreed work plan;

- Preparing periodical and non-periodical reports in accordance with the project work plan and twinning manual guidelines;
- Coordinating and supervising short-term experts' input;
- Providing professional support and local knowledge to medium and short term experts
- Supervising the execution of training programmes
- Ensuring the quality of manuals and printed outputs;
- Ensuring effective and optimal utilisation of available resources;
- Acting as a contact point and liaison with PAO and EC Delegation.

RTA Assistant

The RTA will have a full-time Assistant, who will support him/her in the performance of his/her duties during the entire project period. S/he will assist in the translation, interpretation on a daily basis and general project duties at his/her disposal.

3.5.3. Profile and tasks of the Short-Term Experts

The project depends on the engagement and commitment of experts who will be provided by the MS or mandated body. They will be presented in the MS proposal and finalized together with assignments' duration during the drafting of the work plan by the MS and the BC.

The Experts will work in close liaison with the PL/RTA to coordinate and carry forward the objectives and activities of the project. They will be responsible for the supervision of their respective components and their STEs and the timely submission of mission reports.

The STEs will be specialists in the fields related to the defined activities and will provide the focus on the particular expertise when it will be required during the project.

For each component a **working group** shall be formed (comprised both by MS experts and BC counterparts). These groups should meet regularly to review progress, schedule activities and address any issues or constraints that may have arisen.

The STEs should all have university degrees with wide experience in the relevant discipline with demonstrable expertise in the specific field for which they will be engaged in the project. Previous experience in Egypt or other countries of the region will be considered an asset and they should be proficient in the English language, both written and spoken. All the STEs will have the following tasks to perform:

- Providing expertise and knowhow transfer in their respective areas of specialism
- Preparing and delivering workshops, seminars, on-the-job coaching and training as appropriate to the needs of the project
- Preparing and submitting brief mission reports to the RTA.

The following tables present the profiles and tasks of the Experts and STEs preliminarily envisaged for each of the project's components:

Component 1 Regulatory Framework		
Type	Profile	Tasks
1. KE specialist in railways certification process	<ul style="list-style-type: none"> • University degree in engineering • At least 3 years of relevant experience in the Railways field • Experience in implementing Safety Management Systems • Experience in Safety Certification (safety critical positions) implementation. 	<ul style="list-style-type: none"> • Coordinating the revision and upgrading of job descriptions and training program for critical safety staff (Component 3) • Defining skill requirements • Assessing the decision on whether training/examination shall be done within ENR or outsourced • Defining certification process , developing procedures for certification and following-up drivers certification
2. STE specialist in Maintenance Centres Management	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience in Rolling Stock Maintenance Centres' Management • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Assessing the current situation of the existing Workshops and subcontracted activities for rolling stock maintenance • Defining Workshops accreditation criteria • Defining accreditation strategic plan
3. STE specialist in Control Centres Management	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience in Railways' Control Centres' Management • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Assessing the current situation of the existing Control Centres • Defining Control Centres accreditation criteria • Defining accreditation strategic plan
4. STE specialist in Risk Assessment	<ul style="list-style-type: none"> • University degree in engineering/management • Min. 3 years of experience in Risk Assessment • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Carrying out risk assessment on current situation of Level Crossings • Defining action plan following risk assessment conclusions
5. STE specialist in legal affair	<ul style="list-style-type: none"> • University degree in engineering/law • Min. 3 years of experience in law development in the Railways sector • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Drafting new Level Crossings regulations
6. STE specialist in railway operation	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Railways Operation • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Providing course on international standards contents for railways operation

Component 1 Regulatory Framework		
Type	Profile	Tasks
7. STE specialist in railway signalling systems maintenance	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Railway Signalling Systems • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Providing course on international standards contents for railways signaling systems
8. STE specialist in railway permanent way maintenance	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Railways Permanent Way • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Providing course on international standards contents for railways permanent way
9. STE specialist in railway rolling stock maintenance	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Rolling Stock • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Providing course on international standards contents for Rolling Stock

Component 2. Safety Management System		
Type	Profile	Tasks
1. STE specialist in documentation management	<ul style="list-style-type: none"> • University degree in management / documentation • Min. 3 years of experience on documentation management • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Assessing current documentation management system • Defining new documentation management system • Supporting documentation management implementation
2. STE specialist in railway operation	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Railways Operation • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Defining procedures to be upgraded / developed • Upgrading and develop identified procedures • Following-up methodology definition and implementation
3. STE specialist in railway rolling stock maintenance	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Rolling Stock • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Defining procedures to be upgraded / developed • Upgrading and develop identified procedures • Following-up methodology definition and implementation

Component 3 Capacity Building		
Type	Profile	Tasks
1. STE specialist in HR Capacity Building	<ul style="list-style-type: none"> • University degree in organizational development/HR or equivalent qualification • Extensive experience in institutional capacity development out of which at least 3 years in safety management 	<ul style="list-style-type: none"> • Updating all safety positions with skills requirements • Supporting definition of methodology for following-up the implementation of safety procedure in those aspects related to staff performance (incentives, staff satisfaction, etc.) • Developing specific courses to increase safety culture
2. STE specialist in HR Training Capacity Development	<ul style="list-style-type: none"> • University degree in technical training or equivalent qualification • Extensive experience in training capacity development, out of which at least 3 years in safety management 	<ul style="list-style-type: none"> • Developing training policy and procedures • Analysing training needs and training programs development (competency-based) • Developing various on-job training programs to meet day to day training demands. • Training for trainers (ToTs)
3. STE specialist in railway operation	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Railways Operation • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Assessing on current situation of Human Factor Management • Developing Human Factor Action Plan • Developing training contents and training documentation for operational staff
4. STE specialist in railway rolling stock maintenance	<ul style="list-style-type: none"> • University degree in engineering • Min. 3 years of experience on Rolling Stock • Good knowledge of related European Normative 	<ul style="list-style-type: none"> • Developing training contents and training documentation for rolling stock maintenance staff

4. INSTITUTIONAL FRAMEWORK

The direct beneficiary of this project is the Ministry of Transport (MoT) which is the organization responsible for overseeing the railway sector in Egypt including formulating and overseeing the implementation of overall transport sector strategies and plans.

Several activities of this project will be implemented within the Egyptian National Railways (ENR) which is responsible for the day to day operation of the railway network, with an emphasis on social aspects including the provision of high quality passenger services as well as providing the economic drive for enhancing freight services.

MoT will be in charge of ensuring coordination of project activities with ENR.

Other involved bodies outside of the scope of this engagement include the Ministry of Interior which is responsible for maintaining security at railway stations and in trains.

5. BUDGET

The maximum total budget of the Twinning project is Euro 1.3 million.

6. IMPLEMENTATION ARRANGEMENTS

6.1. Implementing Agency responsible for tendering, contracting and accounting

The Programme Administrative Office is the Contracting Authority and is in charge of the coordination of all activities and the administrative management of the Support to the Association Agreement Programme. The PAO will be the responsible institution for the management of this twinning project. It manages the tenders, contracts and payments in accordance with the procedures of ex-ante control defined in the Practical Guide to contract procedures financed from the general Budget of the EU in the context of external actions.

PAO contact details:

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Programme Director

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6.2. Main counterpart in the BC

6.2.1 Egyptian Project Leader

The Egyptian Project Leader (PL) is a senior civil servant at a decision making level. The PL will act as the counterpart of the Member State PL and will ensure the overall steering and coordination of the project from the Egyptian side, including proper policy dialogue and political support.

The PL's seniority will ensure the mobilisation of the necessary staff in support of the efficient implementation of the project. H/She will lead/coordinate the Project Steering Committee (PSC) from the Egyptian side.

6.2.2 RTA Counterpart

The RTA Counterpart is a senior civil servant who will work with the RTA on a daily basis to ensure proper coordination and implementation of all the activities of the project and achieve an efficient transfer of knowledge and information. The RTA may be involved in one or more of the components of the twinning fiche and should preferably have good command of written and spoken English. Also, together with the RTA will be responsible for finalizing the reports to be submitted to the PLs which will be discussed and approved by the PSC.

The Ministry of Transport

Project Leader in the BC

Mr. Khaled Farouk
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RTA counterpart in the BC

Mr. Magdy El Sabbagh
General Manager for Safety Infrastructure Audits
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The BC is committed to make available the necessary office space and equipment for the MS partners to carry the project's activities. This includes the provision of suitable venues for training and meetings in the BC. During the implementation period, the RTA will be accommodated with an appropriate office space. The Beneficiary administration will be committed to assign relevant staff to cooperate and work closely with their MS counterparts. MoT will assign two main staff members.

However, the BC will make available appropriate office and equipment (including desks, internet access, telephone, fax, photocopier, etc.) for the RTA, RTA Counterpart, RTA Assistant, Experts and Short-Term Experts within ENR premises and close to the BC's Project Leader. Co-financing of the BC will be in kind.

A new Financial Regulation applicable to the general budget of the European Union entered into force on 1st January 2013¹. This implies several changes to the Twinning contract templates. An updated version of the Twinning Manual and of its Annexes, incorporating these changes, is in preparation and shall be published soon

¹ Financial Regulation: Regulation (EC, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:298:0001:0096:EN:PDF>

Rules of Application: Commission Delegated Regulation (EU) No 1268/2012 of 29 October 2012 on the rules of application of Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:362:FULL:EN:PDF>

on EuropeAid website² The Twinning contract that shall be signed as a result of the present procedure shall follow the templates of the updated Twinning Manual and Annexes.

6.3. Contracts

No contracts linked to the twinning project are foreseen.

7. IMPLEMENTATION SCHEDULE (INDICATIVE)

7.1. Launching of the call for proposals

February 2013

7.2. Start of project activities

November 2013

7.3. Project completion

February 2016

7.4. Duration of the execution period

27 months (24 + 3 months closure)

8. SUSTAINABILITY

A higher safety level will provide substantial results for the sustainability of the railway system. Through strengthening safety and related administrative capacity of both MOT and ENR, the railway market situation will become a more reliable means of transport and thus increase revenue generated by activities such as freight and passengers transport.

The project shall continue its effects and benefits in the long term after the end of the envisaged activities. This can be achieved by ensuring the transfer of know-how with the institutions involved. In this sense, all training materials elaborated under the Twinning Project will continue to be used by the ENR and the Ministry of Transport after the project's completion. All materials - Training Material and Manuals - elaborated within the project shall be submitted both in English and in Arabic, so as to ensure smooth dissemination of the project results and sustainability of results.

The institutional sustainability of the project results will also be guaranteed by the direct involvement of both ENR and the Ministry of Transport, which will ensure the synergies and the connections of all stakeholders.

9. CROSSCUTTING ISSUES

The project will be in accordance with the EU policy regarding key cross-cutting development issues

Good Governance and Human Rights

Implementation of the project will contribute to the following principles of *Good Governance*:

- Enhancement of the role of public administration institutions: the project will bring wider benefits for the full implementation of the missions of the RSRU within the MoT.
- Reinforcement of the rule of law and the administration: the project will support the full implementation of the NSR within the Egyptian Railways Network.

² http://ec.europa.eu/europeaid/where/neighbourhood/overview/twinning_en.htm

- Enhancement of the role of non-state actors and their capacity building: the project will support ENR Safety Risk and Management Department in the implementation of its Safety Management System, which will increase its capability to effectively develop a safety culture within the ENR Company.

Environmental

Implementation of the project has no negative impact on the environment.

On the contrary, improving the safety culture in rail transport will contribute to increased utilization of the railway network vis a vis other transport modes thus reducing pollution.

In addition, improved safety contributes to the reduction of the risk of accidental pollution.

Equal Opportunity

Opportunity both for men and women to participate in this project will be guaranteed on equal basis.

10. CONDITIONALITY AND SEQUENCING

10.1. Conditionality

It is crucial to the success of the Twinning Project that the BC and other stakeholders are committed to implementation of the recommendations agreed between the Project Team and the beneficiaries. It is inevitable that implementation will result in changes in the structure, functions and procedures employed by MoT and ENR as well as other stakeholders. It is vital that the changes resulting from the Twinning Project itself are seen, not as a final steady state, but as steps forward in a continuing process of change to reflect the current and future need for the development of the organisation.

10.2. Sequencing

Within each component of the Project, the Activities entered in the log frame are generally sequential. It is important to note however that some components will demand careful synchronisation; in particular, those activities of Component 3 which refer to drivers are to be specifically coordinated with the certification process.

Study tours may be started early in the project to help managers to have a clearer idea of how the foreseen results for this twinning project have been achieved in other countries. Taking into account that driver's certification will need special attention in order to overcome the strong opposition that drivers are presenting to that, it is highly recommended to prepare an early specific tour for that: to visit a particular country where they were facing similar problems but finally succeed with the implementation of the certification process.

ANNEX 1. LOGICAL FRAMEWORK MATRIX

A) OVERALL OBJECTIVE

OVERALL OBJECTIVE	OVI _s /BENCHMARKS	SOURCE OF VERIFICATION	ASSUMPTIONS
To contribute to strengthening the overall capacity of the Egyptian administration in the Railway Safety field in line with the EU Acquis and best practices.	Reduced number of accidents	ENR accident statistics	Commitment of the Egyptian Government to pursue reform in that area, in particular, Ministry of Transport

B) PROJECT PURPOSE

PROJECT PURPOSE	OVI _s /BENCHMARKS	SOURCE OF VERIFICATION	ASSUMPTIONS
To assist the Ministry of Transport (MoT) and the ENR in enhancing their capacities related to the implementation of the regulatory framework, and upgrading the safety management system in line with the EU Acquis and best practices.	<p>The SMS is approved</p> <p>New Level Crossings Regulation is drafted</p> <p>List of Technical Standards to be applied within ENR is made available to all by the MoT.</p> <p>List of complete set of Safety Procedures is issued by ENR-SRM</p> <p>List of certified staff is provided by ENR</p> <p>New training programme is issued by ENR</p>	<p>ENR official documentation</p> <p>MoT official documentation</p> <p>Project regular reports</p> <p>KE/STE mission reports</p>	<p>Allocation of sufficient human and financial resources needed to efficiently implement the project activities and ensure the sustainability of this project after its finalization.</p> <p>Commitment and appropriate level of coordination among all stakeholders involved in the different project levels and areas.</p>

C) RESULTS (COMPONENTS)

RESULTS (COMPONENTS)	OVIs/BENCHMARKS	SOURCE OF VERIFICATION	ASSUMPTIONS
Component 1. Regulatory framework			
<ul style="list-style-type: none"> The methodologies for certifying safety critical staff are developed, and ENR drivers are certified. 	<ul style="list-style-type: none"> Report on skills definition (psychological, physical and technical) for each safety critical position presented. Training contents and examination tests developed A comprehensive and detailed report on the advantages and disadvantages of training/examining within ENR vs outsourcing training/examinations presented Trainers and examiners selected Procedures for certification officially issued by ENR Drivers trained according to the new courses Drivers examined according to defined tests Driver certification officially issued by MoT 	<ul style="list-style-type: none"> Official ENR documents (certification procedures) Official MoT documents (list of certified workers) Project regular reports KE/STE mission reports 	<ul style="list-style-type: none"> Needed resources are available
<ul style="list-style-type: none"> The criteria for Workshops and Control Centres accreditation are defined, and the strategic plan for all workshops and control centres getting the accreditation is developed. 	<ul style="list-style-type: none"> Comprehensive and detailed report on the current situation of workshops presented Comprehensive and detailed report on the current situation of subcontracted activities (rolling stock maintenance) presented Procedures for Workshop accreditation issued by ENR Procedures for Control Centre accreditation issued by ENR Documented Action Plan for Workshops and Control Centres 	<ul style="list-style-type: none"> Official ENR documents (certification procedures) RSRU annual report (Strategic Plan issued) Project regular reports KE/STE mission reports 	<ul style="list-style-type: none"> Needed resources are available Sound synchronization with other ongoing projects

RESULTS (COMPONENTS)	OVI/BENCHMARKS	SOURCE OF VERIFICATION	ASSUMPTIONS
<ul style="list-style-type: none"> A new regulation for level crossings is drafted. 	<ul style="list-style-type: none"> Comprehensive and detailed report on the current situation of Level Crossings along ENR network presented (Risk Assessment) Documented Action Plan for reducing the number of accidents in Level Crossings established New regulations drafted 	<ul style="list-style-type: none"> Official ENR-SRM documents (Action Plan) Official Twinning Project Benchmarks (draft regulation) 	<ul style="list-style-type: none"> Readiness of the BC to adopt the recommended regulation Cooperation with other stakeholders outside the Ministry of Transport
<ul style="list-style-type: none"> The list of technical standards for ENR systems is made available to all stakeholders. 	<ul style="list-style-type: none"> Training course on technical standards related to each railway field performed A list of international Technical Standards which any new construction / equipment / rolling stock for ENR need to comply with is made available to all by the MoT 	<ul style="list-style-type: none"> MoT official publications Project regular reports KE/STE mission reports 	<ul style="list-style-type: none"> UIC standards are made available and can be used

RESULTS (COMPONENTS)	OVIs/BENCHMARKS	SOURCE OF VERIFICATION	ASSUMPTIONS
Component 2. Safety Management System			
<ul style="list-style-type: none"> The procedure for documentation management is completely developed and implemented. 	<ul style="list-style-type: none"> Comprehensive and detailed report on current situation of documentation management presented Coherent documentation management system fully developed and implemented A complete set of procedures made available to all within the company. 	<ul style="list-style-type: none"> Official ENR documents (procedure on documentation management and documentation register according to the procedure) Project regular reports KE/STE mission reports 	<ul style="list-style-type: none"> Full enforcement of the Safety Management System
<ul style="list-style-type: none"> The safety procedures for Operation and Rolling Stock Maintenance which need upgrading are upgraded and those which need to be developed are developed. 	<ul style="list-style-type: none"> Comprehensive and detailed report on the current situation of Operation and Rolling Stock procedures and instructions presented Complete list of Operation and Rolling Stock procedures to be upgraded/developed agreed. The agreed ENR procedures are upgraded/developed 	<ul style="list-style-type: none"> Official ENR documents Project regular reports KE/STE mission reports 	<ul style="list-style-type: none"> Full implementation of Safety Procedures
<ul style="list-style-type: none"> A pilot project related to the specific methodology for following up the implementation of some selected procedures is developed and implemented. 	<ul style="list-style-type: none"> Specific methodology to evaluate the causes of accidents/incidents developed Comprehensive and detailed report on the evaluation of causes of all types of accidents/incidents identified by ENR presented Corrective action and realistic action plans to actually remove the identified causes of accidents/incidents developed. Specific methodology to follow up the implementation of some of the previously defined action plans developed (depending on the number and extension of the defined action plans, a selection will be finally followed up) Previously defined follow up methodology implemented Performance indicators improve (the results of the audits show that non-conformities have been addressed) 	<ul style="list-style-type: none"> ENR auditing reports ENR action plans MoT annual report ENR-SRM annual reports Project regular reports KE/STE mission reports 	

RESULTS (COMPONENTS)	OVIs/BENCHMARKS	SOURCE OF VERIFICATION	ASSUMPTIONS
Component 3: Capacity Building			
<ul style="list-style-type: none"> The Training Programme is upgraded and implemented 	<ul style="list-style-type: none"> New job descriptions including detailed skills requirements developed for all critical and related safety positions The training schedule for Operation and Rolling Stock staff evaluated and updated accordingly The training contents of the courses for Operation and Rolling Stock staff evaluated and updated accordingly The training documentation for courses for Operation and Rolling Stock staff is evaluated and updated accordingly A specific course for increasing safety culture developed and implemented A specific course for preparing Head of Sections/Engineers to perform on-job training to the team developed and implemented Specific methodology to track on-job training developed and implemented 	<ul style="list-style-type: none"> Official ENR documentation (job descriptions, training schedule, training contents, training documentation) Project regular reports KE/STE mission reports 	
<ul style="list-style-type: none"> The action plan for drivers' capacity (<i>Human Factor</i>) enhancement is developed. 	<ul style="list-style-type: none"> Comprehensive and detailed report on the assessment of the current situation of <i>Human Factor</i> presented Documented Action Plan developed and implemented Performance indicators improve (the results of the audits show that non-conformities have been addressed) 	<ul style="list-style-type: none"> ENR auditing reports Project regular reports KE/STE mission reports 	

D) ACTIVITIES

ACTIVITIES	ASSUMPTIONS
Component 1. Regulatory framework	
<ul style="list-style-type: none"> • The methodologies for certifying safety critical staff are developed, and ENR drivers are certified. <ol style="list-style-type: none"> 1. Defining skill requirements (psychological, physical and technical) 2. Defining detailed training program and examination process. 3. Assessing the decision on whether training/examination shall be carried out within ENR or outsourced. 4. Defining certification process – first certification and renovations - including the development of the register where all certifications can be tracked. 5. Issuing the Procedure for each safety critical staff position certification 6. Following up driver’s certification. 	<ul style="list-style-type: none"> • Willingness and commitment to change • Large number of positions and staff members to be covered by the project.
<ul style="list-style-type: none"> • The criteria for Workshops and Control Centres accreditation are defined, and the strategic plan for all workshops and control centres getting the accreditation is developed. <ol style="list-style-type: none"> 1. Assessing of current situation of Workshops and Control Centres 2. Assessing of type of works which are subcontracted, conditions of the subcontracting activities and testing performance on the delivery of repaired subsystems. 3. Defining criteria for Workshops and Control Centres accreditation 4. Defining strategic plan for Workshops and Control Centres 	<ul style="list-style-type: none"> • Needed resources are available • Sound synchronization with other ongoing projects

ACTIVITIES	ASSUMPTIONS
<ul style="list-style-type: none"> • A new regulation for level crossings is drafted. <ol style="list-style-type: none"> 1. Assessing the Risk on level crossings current situation 2. Defining action Plan following the risk assessment is defined 3. Drafting new regulation 	<ul style="list-style-type: none"> • Readiness of the BC to adopt the recommended regulation • Cooperation with other stakeholders outside the Ministry of Transport
<ul style="list-style-type: none"> • The list of technical standards for ENR systems is made available to all stakeholders <ol style="list-style-type: none"> 4. Supporting ENR to get connected to the technical standards providers (UIC, EN) 5. Providing a course on main technical standards contents for each railway subsystem (track, signalling, rolling stock, etc.) 6. Supporting ENR on the evaluation of which technical standards to adopt 	<ul style="list-style-type: none"> • UIC standards are made available and can be used
Component 2. Safety Management System	
<ul style="list-style-type: none"> • The procedure for documentation management is completely developed and implemented. <ol style="list-style-type: none"> 1. Assessing current documentation management 2. Developing procedures for documentation management 3. Implementing the system 	<ul style="list-style-type: none"> • Full enforcement of the Safety Management System
<ul style="list-style-type: none"> • The safety procedures for Operation and Rolling Stock Maintenance which need upgrading are upgraded and those which need to be developed are developed. <ol style="list-style-type: none"> 1. Assessing existing safety procedures, identifying those which need upgrading. 2. Determining conclusions of the risk assessment that the ENR-SRM carries out each year, and developing the list of new procedures. 3. Upgrading those procedures which need upgrading 4. Developing those procedures identified in action 2. 	<ul style="list-style-type: none"> • Full implementation of Safety Procedures

ACTIVITIES	ASSUMPTIONS
<ul style="list-style-type: none"> • A pilot project related to the specific methodology for following up the implementation of some selected procedures is developed and implemented. <ol style="list-style-type: none"> 1. Determining, based on conclusions of the risk assessment that the ENR-SRM carries out each year, the list of procedures whose implementation requires specific follow-up. 2. Developing the specific methodology for following-up the implementation of those procedures identified in action 1. 3. Implementing the defined following-up methodology. 	
Component 3: Capacity Building	
<ul style="list-style-type: none"> • The Training Programme is upgraded and implemented <ol style="list-style-type: none"> 1. Revising and upgrading the Job Description for all positions, based on skills requirements 2. Revising and upgrading training schedules and training contents for operation and rolling stock maintenance related positions 3. Revising and upgrading training documentation for operation and rolling stock maintenance related positions 4. Developing specific courses to increase safety culture 5. Developing specific courses for preparing Head of Sections/Engineers to perform on-job training to the team. 6. Developing specific methodology for traceability of on-job training. 	<ul style="list-style-type: none"> • Profile, commitment and experience of MS in similar twinning project
<ul style="list-style-type: none"> • The action plan for drivers' capacity (Human Factor) enhancement is developed. <ol style="list-style-type: none"> 1. Assessment on current situation of Human Factor Management 2. Assessing current situation of Human Factor Management 3. Developing Action Plan 	<ul style="list-style-type: none"> • Availability and mobilization of STEs in time • STEs meeting expectation